

Figure 1:

Human TCR V α -1.5 (V α -8.2) coding sequence

ATGCTCCTGC TGCTCGTCCC AGTGCTCGAG GTGATTTTAA CTCTGGGAGG
AACCAGAGCC CAGTCGGTGA CCCAGCTTGA CAGCCACGTC TCTGTCTCTG
AAGGAACCCC GGTGCTGCTG AGGTGCAACT ACTCATCTTC TTATTCACCA
TCTCTCTTCT GGTATGTGCA ACACCCCAAC AAAGGACTCC AGCTTCTCCT
GAAGTACACA TCAGCGGCCA CCCTGGTTAA AGGCATCAAC GGTTTTGAGG
CTGAATTTAA GAAGAGTGAA ACCTCCTTCC ACCTGACGAA ACCCTCAGCC
CATATGAGCG ACGCGGCTGA GTACTTCTGT GTTGTGAGTC CTTTTCAGG
AGGAGGTGCT GACGGACTCA CCTTGGCAA AGGGACTCAT CTAATCATCC
AGCCCTATAT CCAGAACCCCT GACCCTGCCG TGTACCAGCT GAGAGACTCT
AAATCCAGTG ACAAGTCTGT CTGCCCTATTC ACCGATTTTG ATTCTCAAAC
AAATGTGTCA CAAAGTAAGG ATTCTGATGT GTATATCACA GACAAAACTG
TGCTAGACAT GAGGTCTATG GACTTCAAGA GCAACAGTGC TGTGGCCTGG
AGCAACAAAT CTGACTTTGC ATGTGCAAAC GCCTTCAACA ACAGCATTAT
TCCAGAAGAC ACCTTCTTCC CCAGCCCAGA AAGTTCCTGT GATGTCAAGC
TGGTCGAGAA AAGCTTTGAA ACAGATACGA ACCTAAACTT TCAAAACCTG
TCAGTGATTG GGTTCGGAAT CCTCCTCCTG AAAGTGGCCG GGTTTAATCT
GCTCATGACG CTGCGGCTGT GGTCCAGCTG A

Figure 2

Human TCR V α -1.5 (V α -8.2) protein sequence

FR1
MLLLLVPVLEVIETLGGTRAQSVTQLDSHVSVSEGT

CDR1 FR2
PVLLRCNYSSSYSPSLFWYVQHHPNKGLQLLLKYT

CDR2 FR3
SAATLVKGINGFEAEFKKSETSFHILTKPSAHMSDA

CDR3
AEYFCVVSPFSGGGADGLT

constant
FGKGTHTLIQPYIQNP DPAVYQLRDSKSSDKSVCLF
TDFDSQTNVS QSKDSDVYIT DKTVLDMRSM
DFKSNSA VAWSNKSDFACAN AFNNSIIPED
TFFPSPESSCDVKLVKESFETDTNLNFQNL SVIGFRIL
LL KVAGFNLLMT LRLWSS

Figure 3:

Human TCR V β -2.1 (V β -20.1) coding sequence

ATGCTGCTGC TTCTGCTGCT TCTGGGGCCA GGCTCCGGGC TTGGTGCTGT
CGTCTCTCAA CATCCGAGCT GGGTTATCTG TAAGAGTGGA ACCTCTGTGA
AGATCGAGTG CCGTTCCCTG GACTTTCAGG CCACAACATAT GTTTTGGTAT
CGTCAGTTCC CGAAACAGAG TCTCATGCTG ATGGCAACTT CCAATGAGGG
CTCCAAGGCC ACATACGAGC AAGGCGTCGA GAAGGACAAG TTTCTCATCA
ACCATGCAAG CCTGACCTTG TCCACTCTGA CAGTGACCAG TGCCCATCCT
GAAGACAGCA GCTTCTACAT CTGCAGTGCT AGAGATGGGG GGGAGGGTTC
GGAGACCCAG TACTTCGGGC CAGGCACGCG GCTCCTGGTG CTCGAGGACC
TGAAAAACGT GTTCCACACC GAGGTCGCTG TGTTTGAGCC ATCAGAAGCA
GAGATCTCCC ACACCCAAA GGCCACACTG GTGTGCCCTGG CCACAGGCTT
CTACCCCGAC CACGTGGAGC TGAGCTGGTG GGTGAATGGG AAGGAGGTGC
ACAGTGGGT CAGCACAGAC CCGCAGCCCC TCAAGGAGCA GCCCGCCCTC
AATGACTCCA GATACTGCCT GAGCAGCCGC CTGAGGGTCT CGGCCACCTT
CTGGCAGAAC CCCCAGCAACC ACTTCGCTG TCAAGTCCAG TTCTACGGGC
TCTCGGAGAA TGACGAGTGG ACCCAGGATA GGGCCAAACC TGTCACCCAG
ATCGTCAGCG CCGAGGCCCTG GGGTAGAGCA GACTGTGGCT TCACCTCCGA
GTCTTACCAG CAAGGGGTCC TGTCIGCCAC CATCCCTCTAT GAGATCTTGC
TAGGGAAGGC CACCTTGAT GCCGTGCTGG TCAGTGCCCT CGTGCTGATG
GCCATGGTCA AGAGAAAGGA TTCCAGAGGC TAG

$\frac{N}{5}$

Figure 4

Human TCR V β -2.1 (V β -20.1) protein sequence

WO 2005/056595

PCT/GB2004/005100

FR1

MLLLLLLLGPGSGLGAVVSQHPSWVICKSGTSVKIECR

CDR2

FR2

CDR1

SLDFQATTMFWYRQFPKQSLMLMATSNEGSKATYEQ

FR3

GVEKDKFLINHASLTLSLTLTVTSAHPEDSSFYICSARD

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CDR3

GGEG

constant

SETQYFGPGTRLLVLEDLKNVFPPEVAVFEPSEAEISHTQ
KATLVCLATGFYPDHVELSWWVNGKEVHSGVSTDQPPL
KEQPALNDSRYCLSSRLRVSAFWQNPRNHRCQVQFY
GLSENDEWTQDRAKPVTVQIVSAEAWGRADCFTSESYQ
QGVLSATILYEILLGKATLYAVLVSALVLMAMVKRKDS

RG

figure 5

Human TCR V α -1.5 (V α -8.2) protein sequence

		FR1
MLLLLVPVLEVIFTLGGTRAQSVTQLDSHVS		SEGT
	CDR1	FR2
PVLLRCNYSSSYSPSLFWYVQHHPNKGLQLLLKYT		
	CDR2	FR3
SAATLVKGINGFEAEFFKKSETSFHILTKPSAHMSDA		
<u>Va8.2</u>	<u>CDR3</u>	<u>J45</u>
AEYFCVVSPFSGGGADGLTFGKGTH		LIQP
constant		
YIQNP	DP	AVYQLRDSKSSDKSVCLF
QSKDSDVYIT	DK	TVLDMRSM
DFKSNSA	V	AWSNKSDFACAN
TFEPSESSCDVKL	VE	KSFETDTNLFQNLS
LL	KV	AGFNLLMT
		LRLWSS

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figure 6

Human TCR V β -2.1 (V β -20.1) protein sequence

FR1

MILLLLLLGPGSGLGAVVSQHPSWVICKSGTSVKIECR

CDR1

FR2

CDR2

SLDFQATTMFWYRQFPKQSLMLMATSNEGSKATYEQ

FR3

GVEKDKFLINHASLTLSTLTVTSAHPEDSSFYICSARD

CDR3

J2.5

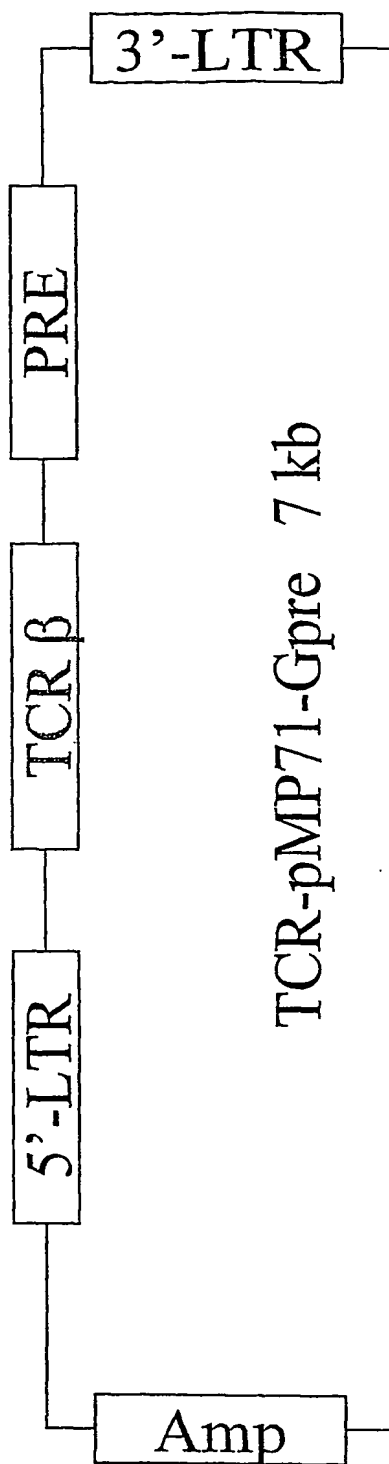
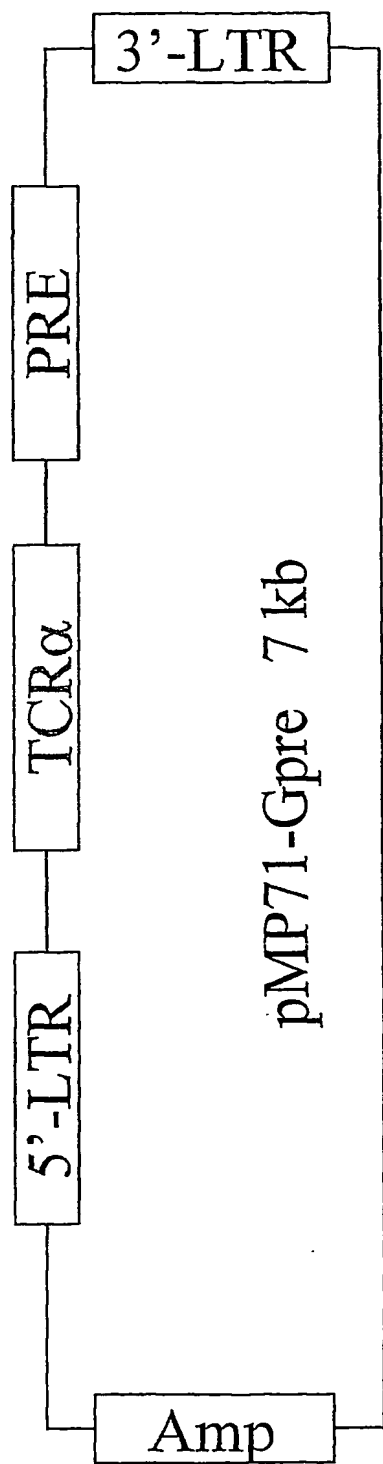
GGEGSETQYFGPGTRLLVL

Constant 2

EDLKNVFPPEVAVFEPSEAEISHTQKATLVCLATGFYPDH
VELSWVWNGKEVHSGVSTDPQPLKEQPALNDSRYCLSS
RLRVSA¹TFWQNP²RNH³RCQVQFYGLSENDEWTQDRAKP
VTQIVSAEAWGRADC⁴GFTSES⁵YQQGVLSATILYEILLGK
ATLYAVLVSALVLMAMVKRKDSRG

Figure 7

TCR-retroviral constructs



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Figure 8

TCR Expression in Human PBMC after transduction

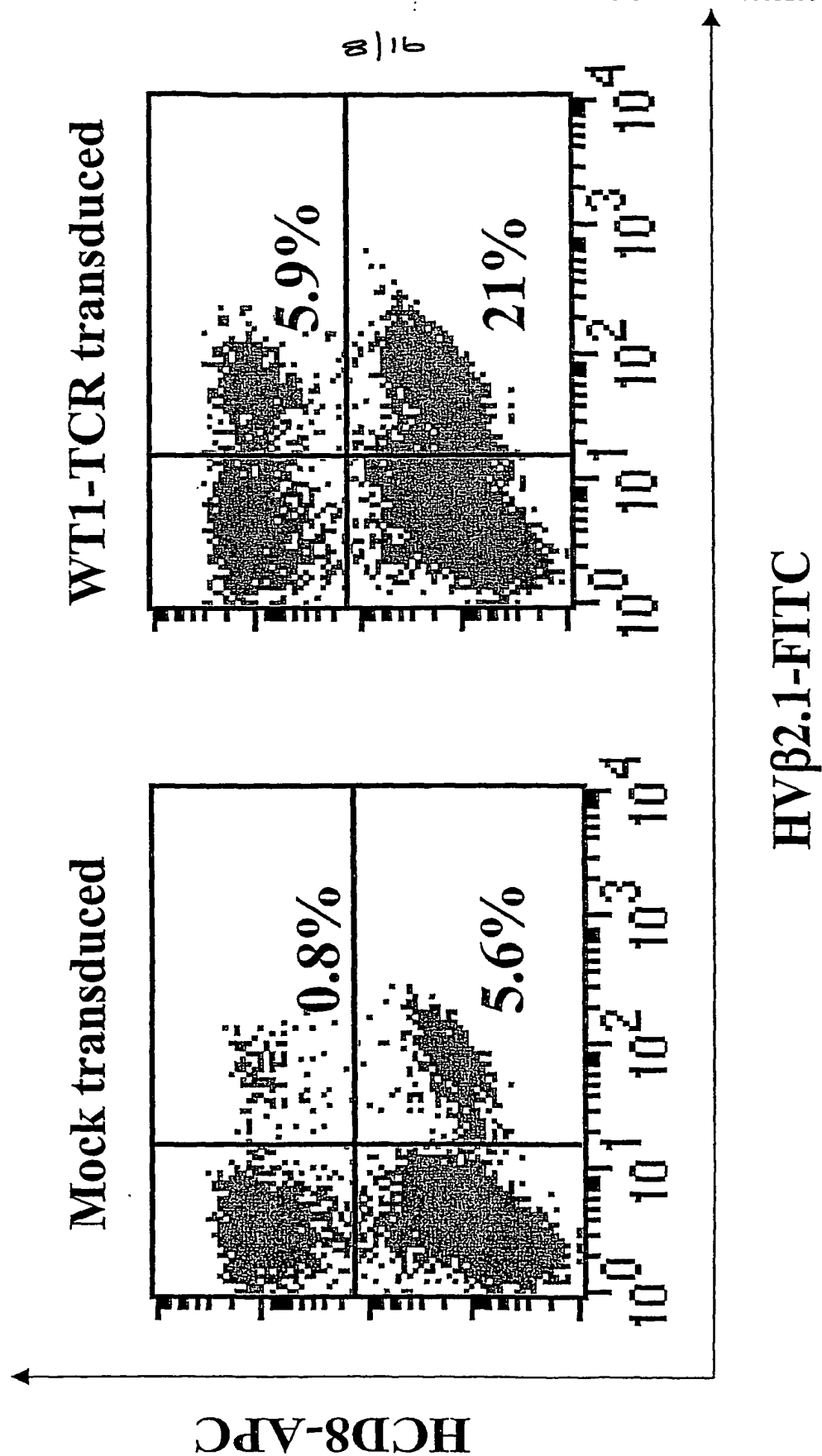


Figure 9

Increase of CD8⁺-Vb2.1⁺ T Cells
after antigen stimulation

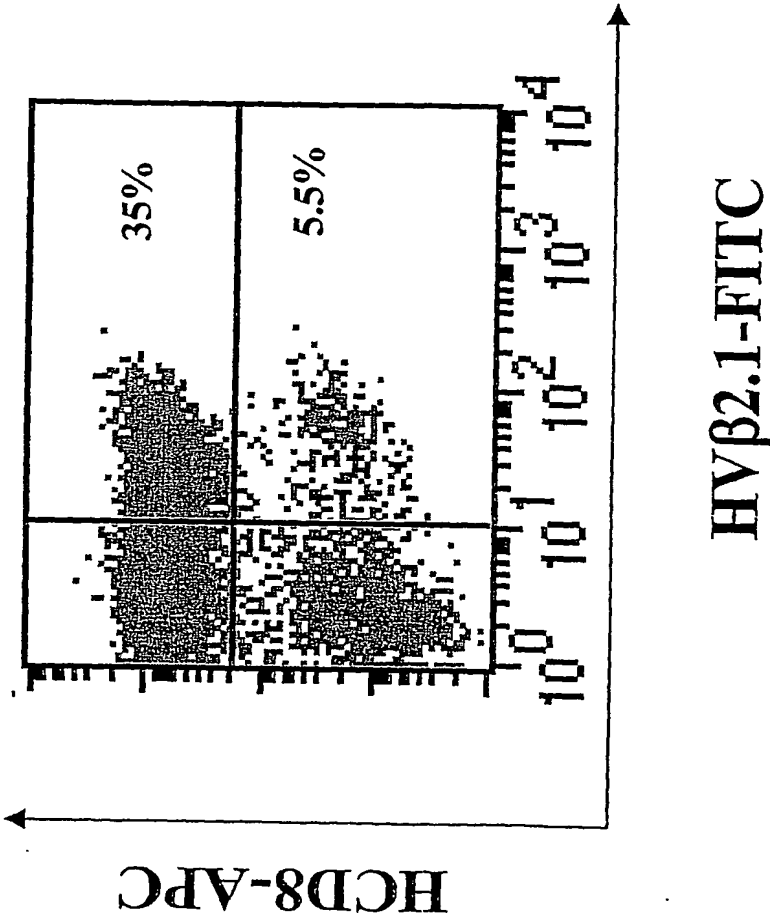


Figure 10

TCR specific for pWT126 transduced PBMC

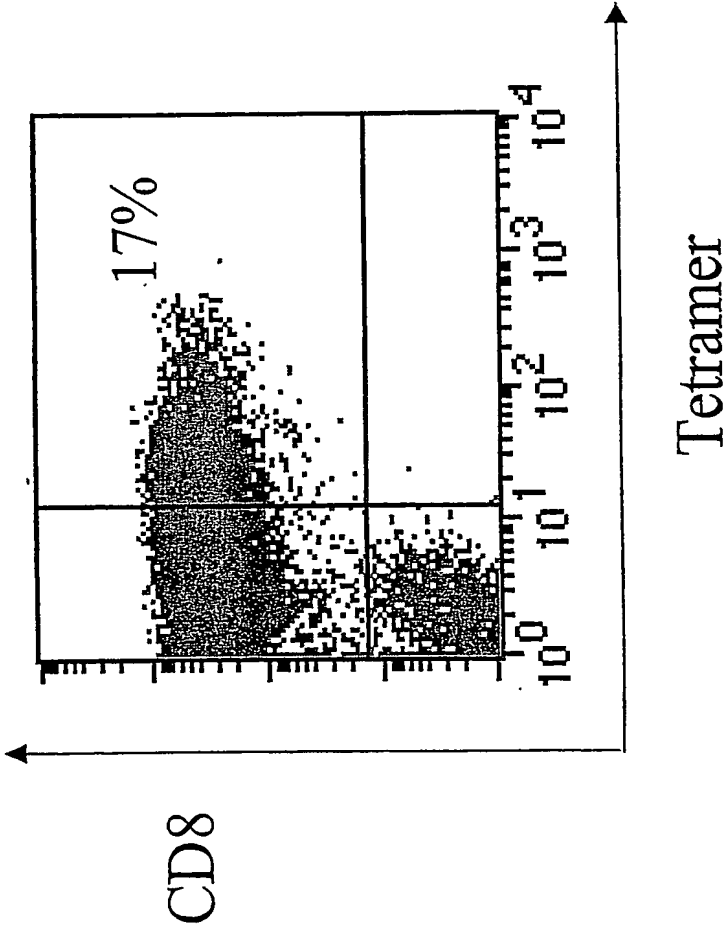


Figure 17

TCR transduced bulk T cells show pWT126-specific killing activity

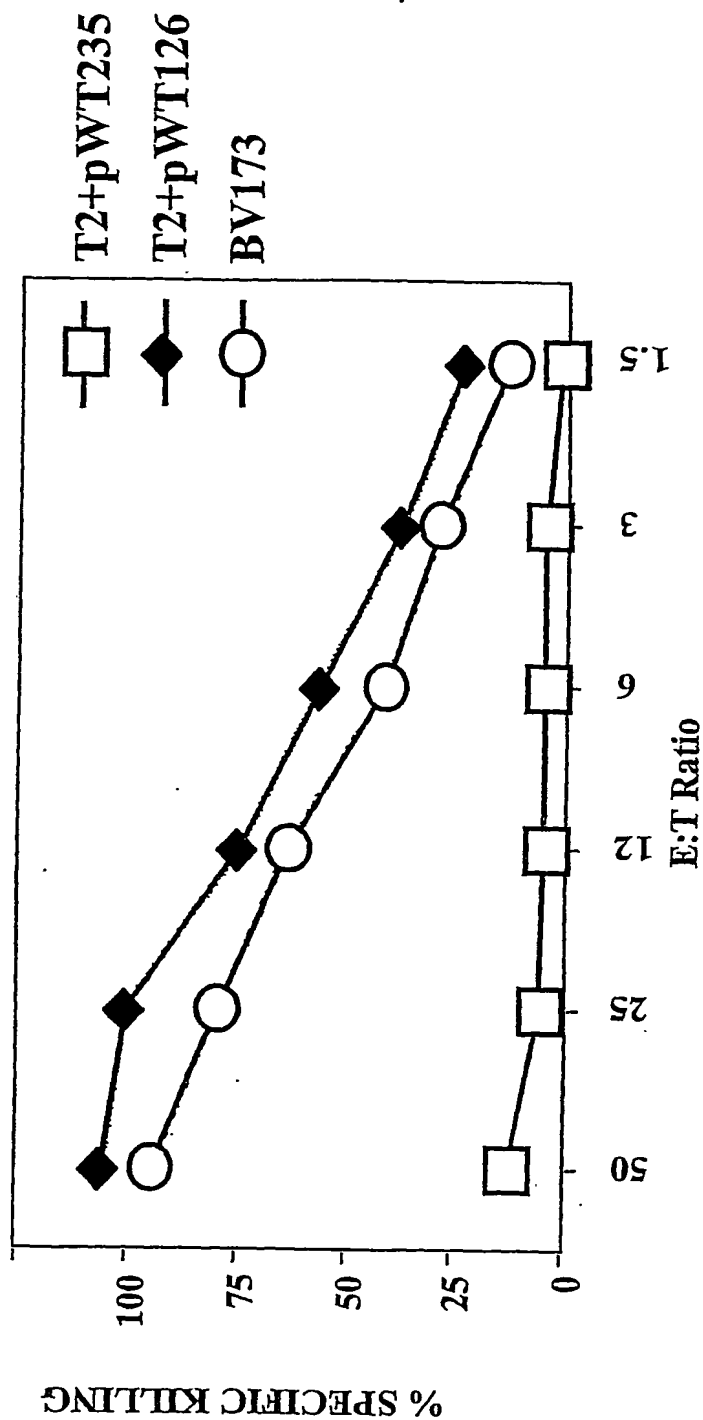


Figure 12

TCR transduced CD8⁺ T cells show pWT126-specific killing activity

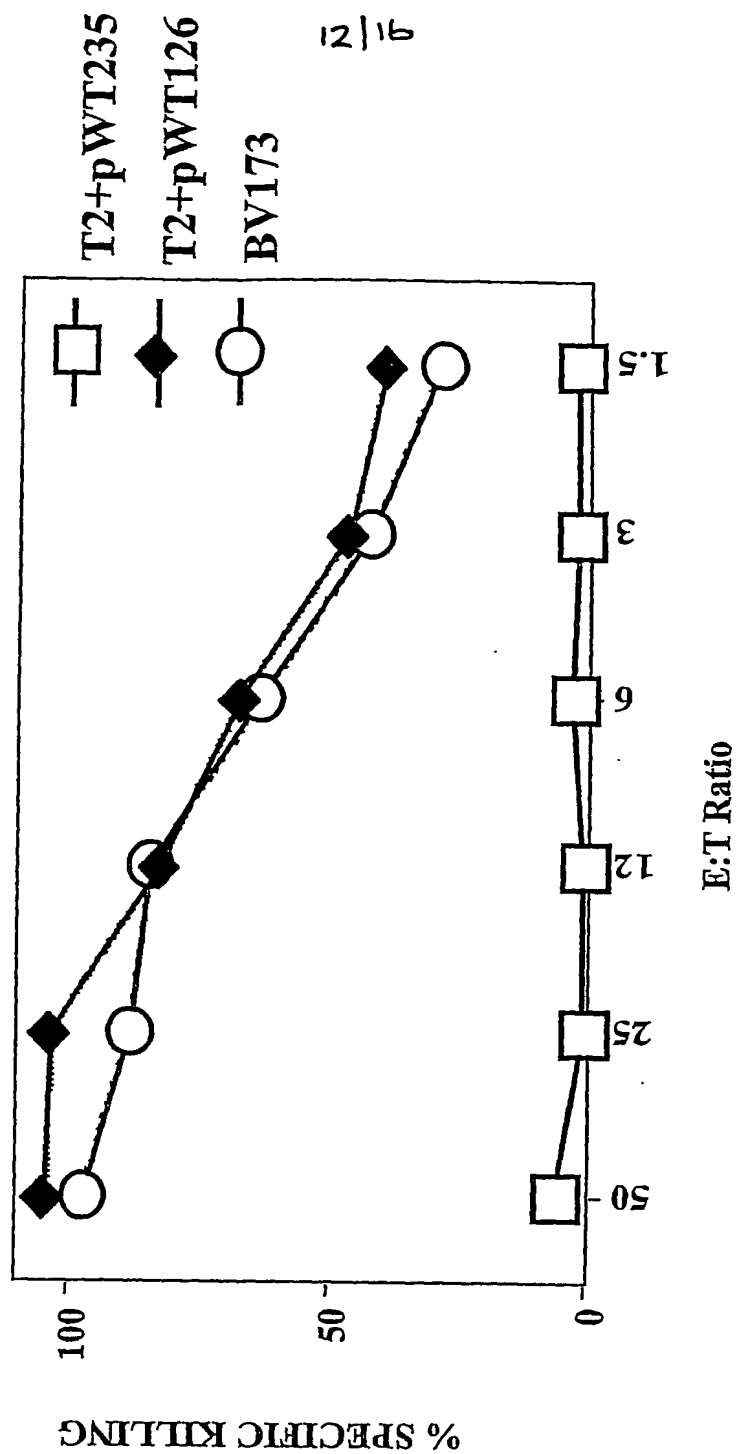


Figure 13

TCR specific for pWT126 transduced
PBMC sorted CD4

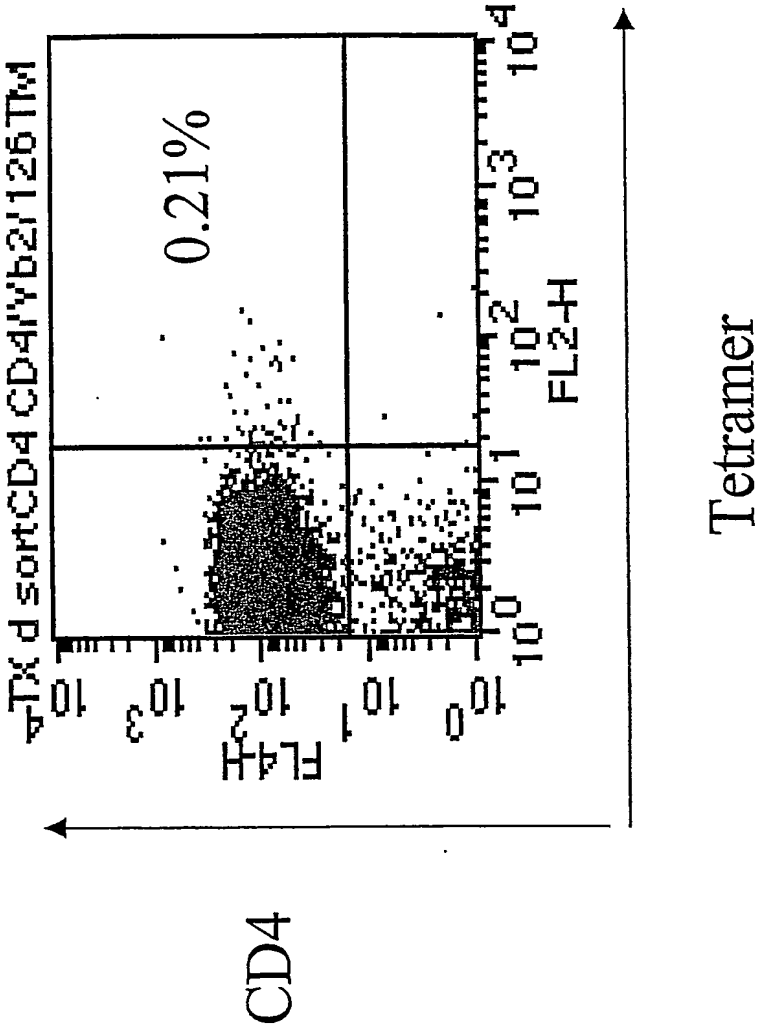


Figure 14

TCR transduced CD4+ T cells show pWT126-specific killing activity

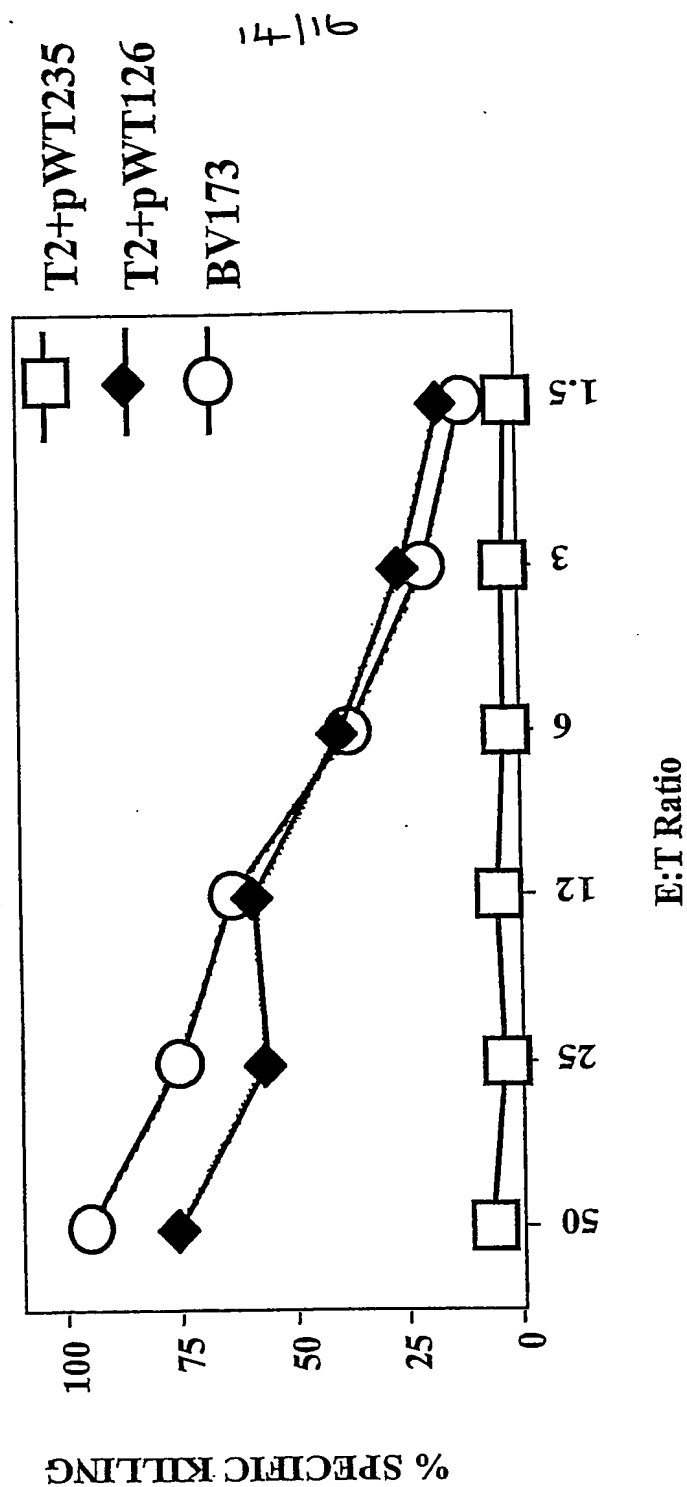
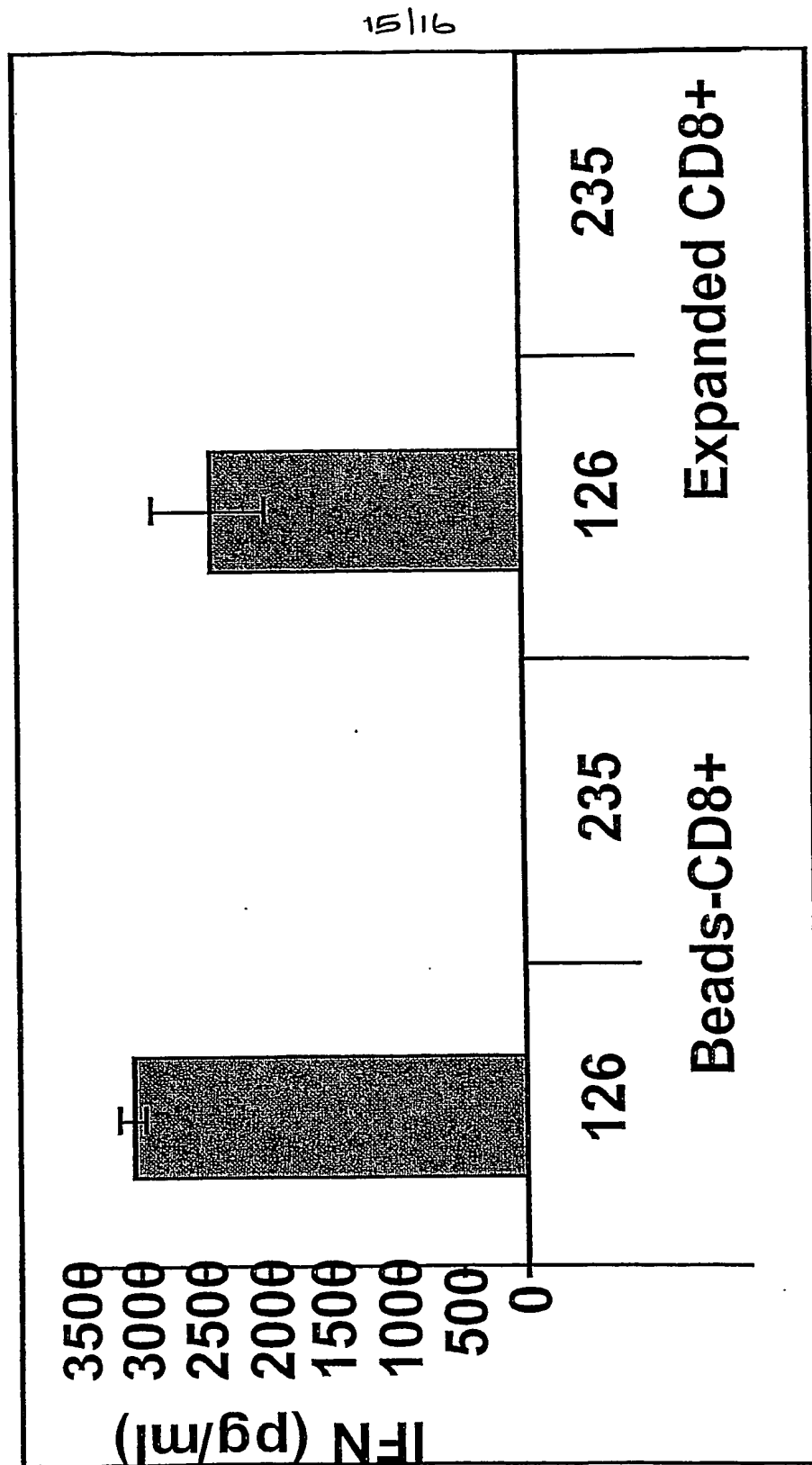


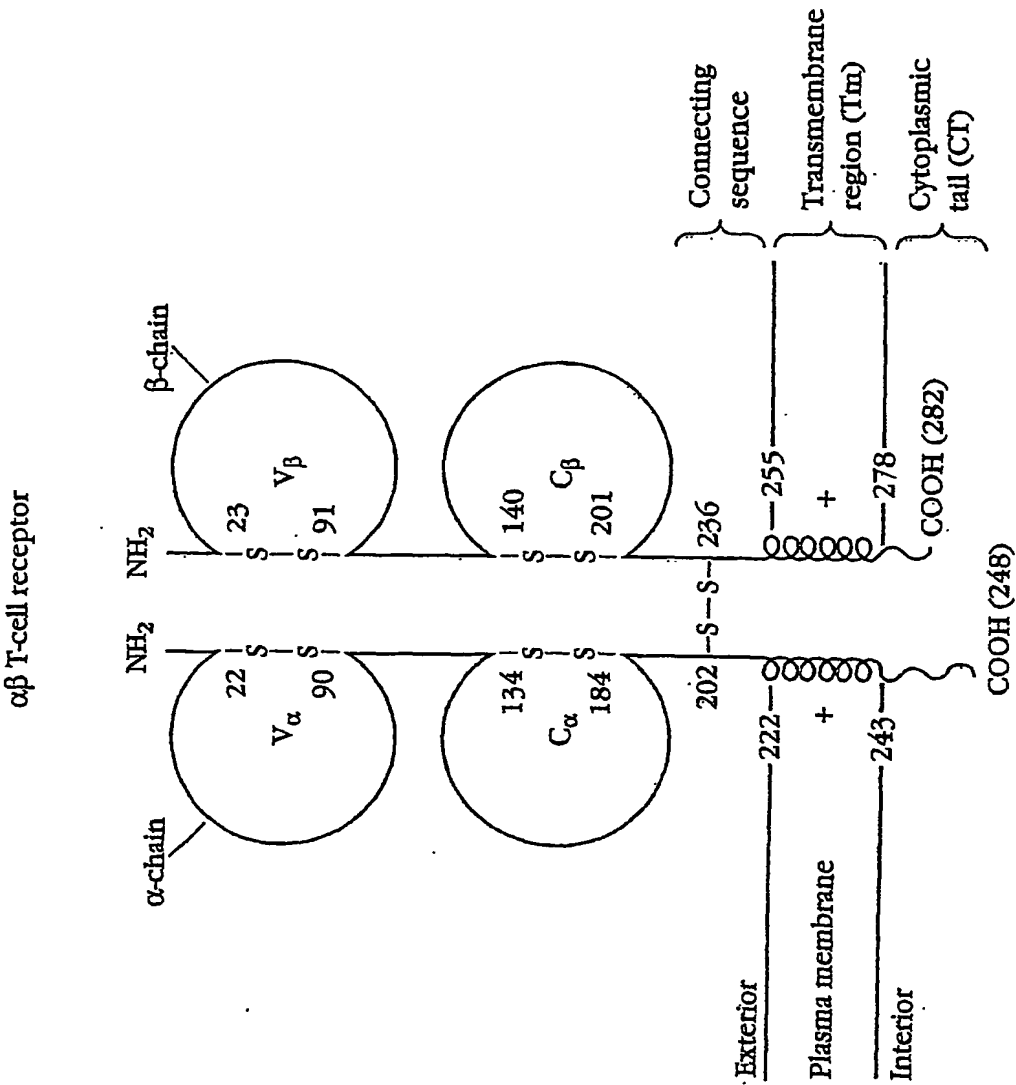
Figure 15

TCR transduced CD8+ T cells show pWT126-specific IFN- γ production



After 20 hrs incubation

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Figure 16



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